

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911 and)	PS Docket No. 11-153
Other Next Generation 911 Applications)	
)	
Framework for Next Generation 911)	PS Docket No. 10-255
Deployment)	

**REPLY OF CTIA – THE WIRELESS ASSOCIATION® TO OPPOSITION TO
PETITION FOR RECONSIDERATION**

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I. INTRODUCTION AND SUMMARY

CTIA – The Wireless Association® (“CTIA”) hereby respectfully replies to the Opposition filed by the Association of Public-Safety Communications Officials-International, Inc.¹ (“APCO”) against its Petition for Reconsideration, or in the Alternative, for Clarification (“Petition”) of the Commission’s new rules regarding a text-to-9-1-1 “bounce-back” notification.² CTIA’s Petition requested that the Commission reconsider Section 20.18(n)(7)³ of

¹ Opposition of APCO International to Petition for Reconsideration, PS Docket No. 11-153, PS Docket No. 10-255 (Aug. 15, 2013) (“Opposition”).

² Petition for Reconsideration, or in the Alternative, for Clarification of CTIA – The Wireless Association®, PS Docket No. 11-153, PS Docket No. 10-255 (June 28, 2013) (“Petition”). CTIA and its members remain steadfast in their commitment to facilitate the deployment of viable solutions for text-based 9-1-1 communications. In December 2012, CTIA member companies AT&T, Sprint, T-Mobile, and Verizon Wireless entered into a voluntary agreement with the National Emergency Number Association (“NENA”) and APCO to enable text-to-9-1-1 on their networks. *See* Letter from Terry Hall, APCO International, Barbara Jaeger, NENA, Charles W. McKee, Sprint Nextel, Robert W. Quinn Jr., AT&T, Kathleen O’Brien Ham, T-Mobile USA, and Kathleen Grillo, Verizon, to Julius Genachowski, Chairman, Federal Communications Commission, and Commissioners McDowell, Clyburn, Rosenworcel, and Pai, PS Docket No. 11-153, PS Docket No. 10-255 (Dec. 6, 2012) (“Carrier-NENA-APCO Agreement”). Notably, the Carrier-NENA-APCO Agreement specifically omitted roaming requirements because of the carriers’ established technical feasibility concerns.

the new rules (“the roaming requirement”), or in the alternative, modify Section 20.18(n)(3) in a way that accurately aligns the responsibilities of home and roaming carriers with technical realities. The relief CTIA’s Petition requests will *not* prevent consumers who are roaming from receiving the bounce-back message mandated under new rule Section 20.18(n)(3). CTIA’s Petition seeks simply to ensure that the Commission’s rules assign responsibilities to carriers in a manner that reflects technical realities. Notably, CTIA’s position on this issue has record support not only from wireless carriers, but also from another leading public safety organization – the National Emergency Number Association (“NENA”).⁴

CTIA’s requested relief provides the Commission with a measured approach that balances concerns for informing roamers of the availability of text-to-9-1-1 service with the rural carriers’ concern for the impact of the new rules on service providers. Service providers’ existing text-to-9-1-1 solutions, and CTIA’s request, already accommodate the Opposition’s concern—namely that “[t]he bounce-back function . . . exist whether or not the subscriber is roaming.”⁵ The only issue is that the responsibility for delivering the bounce-back message should lie solely with the home carrier, not the serving carrier.⁶ In accordance with the weight of the evidence filed in this proceeding, the relief CTIA seeks will simply allocate carriers’ legal responsibilities in a way that aligns with technical realities.

³ *In the Matter of Facilitating the Development of Text-to-911 and Other Next Generation 911 Applications*, PS Docket No. 11-153; and *In the Matter of Framework for Next Generation 911 Deployment*, PS Docket No. 10-255, Order, FCC 13-64 (rel. May 17, 2013) (“Order”).

⁴ Letter from Telford E. Forgety, III, NENA to Marlene H. Dortch, FCC, PS Docket No. 11-153 (filed August 20, 2013) (“NENA August 20 *Ex Parte*”).

⁵ APCO Opposition at 2.

⁶ As used herein, the terms “serving carrier” and “roaming carrier” refer interchangeably to carriers that serve wireless subscribers traveling outside their own home carrier’s network infrastructure to send a native SMS text message.

II. THE RECORD IN THIS PROCEEDING DEMONSTRATES THAT COMPLIANCE WITH THE COMMISSION’S ROAMING REQUIREMENT IS NOT TECHNICALLY FEASIBLE

APCO’s Opposition primarily disputes the notion that the Commission’s roaming requirement, as adopted, is technically infeasible.⁷ Instead, the Opposition argues that the technical limitations to such a requirement are “not insurmountable,” and therefore that the Commission’s regulations are reasonable.⁸ However, the text-to-9-1-1 roaming capabilities that the Opposition generally raises are directed at the second part of the NPRM, which is still pending before the Commission. In any event, CTIA’s position is supported by the underlying record as reflected in the collective assessment of service providers, public safety, and expert third party bodies alike.

Indeed, the Commission’s Emergency Access Advisory Committee (“EAAC”), the wireless industry, and other expert organizations all have provided substantial evidence demonstrating that compliance with the Commission’s new roaming requirements is not technically feasible for serving carriers at this time. Expert organizations such as ATIS/TIA and the EAAC have both emphasized that the technical feasibility of supporting SMS-to-9-1-1 in a roaming situation is still uncertain. Notably, the Joint ATIS/TIA Native SMS-to-9-1-1 non-proprietary technical standard (“ATIS/TIA Joint Standard”) concludes that support for SMS-to-

⁷ APCO’s Opposition occasionally exceeds the scope of CTIA’s Petition. CTIA’s Petition is limited to ensuring that the Commission assigns legal responsibility for sending bounce-back messages to entities that are technically capable of complying with the Commission’s rules. The issue raised by APCO of support for the underlying text-to-9-1-1 service in a roaming situation is still pending before the Commission. *See Facilitating the Deployment of Text-to-9-1-1 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment, Further Notice of Proposed Rulemaking*, FCC 12-249, ¶ 20 (Dec. 13, 2012) (“FNPRM”).

⁸ APCO Opposition at 3.

9-1-1 for roaming subscribers is a subject “for future study.”⁹ Similarly, the EAAC has reported that “in inter-carrier domestic or international roaming situations, SMS-to-9-1-1 cannot, at this point, be supported because addressing the ‘Text Origination Information’ and ‘Home Network Control’ issues would require significant modifications to the wireless originator network and core infrastructure that will ultimately delay the deployment of SMS-to-9-1-1 services.”¹⁰

The EAAC has further noted that SMS messages sent between roaming partner networks do not always pass through the location information needed to permit a home carrier to route an SMS message to an appropriate PSAP.¹¹ As CTIA has explained, without location data, carriers do not have any technically feasible means of determining whether sending an automatic bounce-back message would be appropriate.¹²

As CTIA has described, a requirement that the serving carrier bear responsibility for providing bounce-back messages to roaming subscribers directly conflicts with the current network architectures as described by the ATIS/TIA Joint Standard and the EAAC. In addition, the Commission’s Order itself acknowledged that the roaming requirement may pose grave technical challenges by highlighting the Texas 9-1-1 Entities’ comment that, given current network architectures, “the home carrier of a SMS subscriber may currently need to be

⁹ ATIS & TIA, *Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification*, J-STD-110, at 5 (2013) (“ATIS/TIA Joint Standard”).

¹⁰ EAAC, *Report of Emergency Access Advisory Committee (EAAC) Subcommittee 1 on Interim Text Messaging to 9-1-1*, at 10 (Mar. 1, 2013) (“EAAC March 2013 Text Messaging Report”).

¹¹ *Id.*

¹² Petition at 5.

responsible for generating the required bounce-back message.”¹³ In sum, the record is replete with evidence confirming that generating automatic bounce-back messages is currently beyond the technical capabilities of serving carriers.

Nevertheless, to support its conclusion that the Commission’s roaming requirement may be technically feasible, the Opposition inaccurately describes the capabilities of the ATIS/TIA Joint Standard’s Text Control Center (“TCC”) approach to SMS based text-to-9-1-1 and existing SMS network architectures. The Opposition’s description of the ATIS/TIA Joint Standard’s approach to TCC management of a carrier’s native SMS messages sent to public safety answering points (PSAPs) incorrectly assumes that either: (1) the home carrier and serving carrier have chosen the same TCC, or (2) that all TCCs are capable of interoperating to provide an interface between home carriers, serving carriers, and PSAPs.¹⁴ The ATIS/TIA Joint Standard’s approach to TCCs, however, is not predicated upon these assumptions. Instead, the ATIS/TIA Joint Standard simply assumes that the TCC will provide an interface between *a* carrier and *a* PSAP to allow “different deployment scenarios of the various functional elements.”¹⁵ The approach does not assume that the TCC will provide a gateway for communicating information between multiple carriers, nor does it assume that home carriers and serving carriers necessarily share the same TCC.

In addition, the Opposition inaccurately suggests that the serving carriers’ TCC may know whether the appropriate PSAP can receive text-to-9-1-1 messages based on the roaming

¹³ Order at ¶ 71 (quoting Reply Comments of the Texas 9-1-1 Entities, PS Docket No. 11-153, PS Docket No. 10-255, at 4 (Feb. 8, 2013) (“Texas 9-1-1 Entities February 2013 Reply Comments”)).

¹⁴ APCO Opposition at 3.

¹⁵ ATIS/TIA Joint Standard at 6.

consumer's "coarse location information."¹⁶ The Opposition posits that the TCC could then pass this information "back to the carrier, which can either send a bounce-back message or not based upon service availability."¹⁷ This theory, however, is belied by the record evidence that *all* SMS messages are first routed to the home carrier for processing.¹⁸ Thus, a SMS text message to 9-1-1 will be routed from the serving carrier to the home carrier *before* it is sent to the serving carrier or home carrier's TCC. As a result, serving carriers will not be able to "obtain the minimum amount of information needed to route the call," as the Opposition suggests.¹⁹ Because serving carriers ultimately will not associate any location information regarding the text message with the determination of a PSAP's text-to-911 capability, compliance with the roaming requirement remains technically infeasible.

Aside from a misplaced reliance on a TCCs' ability to enable compliance with the roaming requirement, the Opposition's broader suggestion that the roaming requirement is technically feasible, is, in fact, directly contradicted by the record.²⁰ Wireless industry and

¹⁶ APCO Opposition at 3.

¹⁷ *Id.*

¹⁸ See Texas 9-1-1 Entities February 2013 Reply Comments at 10; Comments of CTIA – The Wireless Association®, PS Docket No. 11-153, PS Docket No. 10-255 at 13 (Mar. 11, 2013) ("CTIA March 2013 Comments"); Comments of Verizon and Verizon Wireless, PS Docket No. 11-153, PS Docket No. 10-255 at 7-8 (Mar. 11, 2013) ("Verizon March 2013 Comments").

¹⁹ APCO Opposition at 3.

²⁰ In support of its conclusion that the roaming requirement is technically feasible, the Opposition also mistakenly relies on very limited comments made by Proximiti Technologies, Inc. See Comments of Proximiti Technologies, Inc., PS Docket No. 11-153, PS Docket No. 10-255 (Jan. 28, 2013) ("Proximiti January 2013 Comments"). The Opposition cites Proximiti's comments for the proposition that compliance with the roaming requirement is technically feasible for serving carriers. APCO Opposition at 3. Yet, Proximiti makes no reference to location capabilities in its filing. Proximiti January 2013 Comments at 1. Rather, Proximiti states that it would be unlikely to ever support text-to-9-1-1 absent a legal mandate to do so. *Id.* Proximiti goes on to broadly claim that it believes its software infrastructure can support a

public safety participants in this proceeding have submitted findings that support those of the EAAC and ATIS/TIA Joint Standard and directly contradict those of the Opposition. Notably, NENA explained that the parties to the Carrier-NENA-APCO Agreement were all aware of and understood the roaming limitations inherent to existing SMS systems.²¹ NENA also had previously stated that roaming presents a “key challenge” to text-to-9-1-1.²² In recognition of “the complexity of th[e roaming] issue when multiple ANPs, OSPs, and Text-to-9-1-1 service providers could be involved (any or all of whom may employ divergent technology or protocols),” NENA affirmed its belief that “an exclusion of roaming support . . . is appropriate at this time.”²³

Other commenters in this proceeding also have confirmed that existing network architectures are constructed such that *only* the *home* carrier is capable of generating a bounce-back message for roaming subscribers, and thus have expressed concern with their ability to comply with the rule as adopted.²⁴ The Texas 9-1-1 Entities explained that “because the voice network and SMS network treat ‘roaming’ differently, it appears that the home carrier of a SMS subscriber may currently need to be responsible for generating the required bounce-

bounce-back message without providing any technical details as to how such a system would work. *Id.* Meanwhile, Proximiti’s filing is substantially outweighed by ample evidence in the record that the Commission’s requirement is not technically feasible.

²¹ NENA August 20 *Ex Parte*.

²² Comments of the National Emergency Number Association, PS Docket No. 11-153, PS Docket No. 10-255, at 14 (Mar. 11, 2013) (“NENA March 2013 Comments”).

²³ *Id.*

²⁴ See Letter from Nneka Chiazor, Verizon to Marlene H. Dortch, FCC, PS Docket No. 11-153 (June 13, 2013); Letter from Jamie M. Tan, AT&T to Marlene H. Dortch, FCC, PS Docket No. 11-153 (June 11, 2013).

back message.”²⁵ Similarly, AT&T has highlighted that, when it comes to roaming situations, “the problem is location information.”²⁶ Notably, AT&T’s findings regarding the capabilities of a TCC directly contradict the Opposition.²⁷

Commenters also have made clear that the roaming requirement will not become technically feasible in the near term. Restructuring current network architectures to enable serving carriers to comply with Section 20.18(n)(7) as written would require massive network modifications that would take substantial time and divert resources away from Next Generation 9-1-1 deployment.²⁸ Accordingly, the overwhelming weight of the record evidence confirms that the Commission’s requirement that CMRS providers must provide an automatic bounce-back message when a subscriber is roaming is not technically feasible.

Given the evidence in the record, it comes as no surprise that CTIA’s Petition has garnered firm support from public safety and rural carriers alike. NENA has extended support for CTIA’s Petition because “CTIA’s position with respect to the limited question of which party should be responsible for delivering a bounce-back message is consistent with the understanding

²⁵ Order, ¶ 71 (quoting Texas 9-1-1 Entities February 2013 Reply Comments at 4).

²⁶ Comments of AT&T Inc., PS Docket Nos. 11-153 and 10-255 at 20 (Mar. 11, 2013).

²⁷ *Id.* at 20-21 (“For example, if a T-Mobile subscriber were to roam on AT&T Mobility’s (AT&TM) network and were to send an emergency text-to-911, AT&TM would send the text message from that subscriber to T-Mobile’s message center to complete. When T-Mobile receives the message, it would recognize the 9-1-1 digits and forward that message to their text-to-911 control center (TCC), typically handled by a third-party vendor. The TCC would receive the text message addressed to 9-1-1 and attempt to obtain location information from T-Mobile but, because this subscriber is currently on the AT&TM network, T-Mobile would not have any information about the serving cell site to deliver to the text control gateway (TCG) for routing purposes. In this case, the TCC’s only recourse would be to send an auto-reply (bounce-back) message to the subscriber that text-to-911 is currently unavailable.”).

²⁸ *See, e.g., id.* at 21.

of the public safety community.”²⁹ The Blooston Rural Carriers also agree that the roaming requirement is technically infeasible as written.³⁰ Accordingly, the Blooston Rural Carriers’ comments in support of CTIA’s Petition explain that “no record evidence attests to the feasibility of providing this [roaming bounce-back] capability at this time.”³¹ The Blooston Rural Carriers go on to caution the Commission that “failure to repeal the regulation at this time will not result in the provision of the service by September 30, 2013, but will instead result in the Commission being deluged with requests for temporary waivers from all CMRS carriers – waivers which the Commission will be compelled to grant.”³² It is clear, then, that the record in this proceeding and the public interest compel the Commission to grant CTIA’s Petition.

III. CONCLUSION

CTIA and its member companies have long collaborated with interested stakeholders from the public safety community to ensure that wireless communications support 9-1-1 services, including the voluntary initiative to make interim text-to-9-1-1 services available to the public. CTIA’s Petition does not reflect a deviation from its commitment to help ensure that emergency communications are available to the public when needed most. Rather, CTIA’s request that the Commission carefully reconsider Section 20.18(n)(7) reflects the fact that technical challenges posed by the roaming requirement are currently technically infeasible for serving carriers. By carefully assuring that the rules reflect current network architectures, the

²⁹ NENA August 20 *Ex Parte*.

³⁰ Comments of The Blooston Rural Carriers in Partial Support of CTIA’s Petition, PS Docket No. 11-153, PS Docket No. 10-255 at 5 (Aug. 15, 2013).

³¹ *Id.*

³² *Id.*

Commission will help further its goal of effective implementation of text-to-9-1-1 services for all wireless subscribers.

Respectfully submitted,

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